Remarks

The following remarks are responsive to the Office Action dated December 26, 2008 in the above referenced pending application. Applicant respectfully requests reconsideration in view of the remarks presented below.

Status of the Claims

Claims 1, 5, 6, 10-13, 19 and 20 are pending.
Claims 1, 5, 6, 10-13, 19 and 20 are rejected under 35 U.S.C. §112.
Claims 1, 5, 6, 10-13, 19 and 20 stand rejected under 35 U.S.C. §103.

Claim Rejections - 35 U.S.C. § 112: Claims 1,5,6,10 -13, 19 and 20

Claims 1, 5, 6, 10-13, 19 and 20 are rejected under 35 U.S.C. 112, first paragraph as allegedly not teaching the relationship between d_1, d_2 and the $L_{background}$ percentage. Support for this relationship can be found in the present specification on page 8, line 21 through page 13, line 20. Ambient Contrast Ratio (ACR) is an accepted term with set-up and procedures described by the "Flat Panel Display Measurements Standard" as set forth by the Video Electronics Standards Association Display Metrology Committee. Accordingly, this rejection should be withdrawn.

Claim Rejections - 35 U.S.C. § 103(a): Claims 1, 5, 6, 10 -13, 19 and 20

Claims 1, 5, 6,10-13, 19 and 20 are rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,876,0178 to Ko (hereinafter *"Ko"*).

The Office action states:

> *Accordingly, it is considered within the capabilities of one skilled in the art to optimize prior art conditions (i.e. the corresponding layers thicknesses within the display panel) in order to obtain a result-effective value (i.e. a $L_{background}$ within the claimed values) as an obvious matter of design engineering in view of Ko's teaching*

Optimizing conditions for literally millions of possible combinations of electroluminescent component layers falls well outside the threshold for reasonable experimentation. The resulting device is distinct from Ko in at least the requirement of Ko's metal reflective layer, as outlined below.

In col. 2, lines 28-38 of Ko:

> In the first embodiment, the method comprises the following steps. Firstly, a **metal reflective layer is formed** (Applicant's emphasis) on a provided substrate. Then a transparent anode, an organic layer, a translucent electron-injecting cathode, a buffer layer and a transparent electrode are sequentially deposited on the metal reflective layer. In order to reduce the affect of the ambient-light reflection, during the designated deposition procedure, adjusting one or both of the thickness of the organic layer and the transparent anode that the reflected lights generate destructive optical interference and improve the visually perceived contrast of the emitted light.

The metal reflective layer of Ko must be deposited on the substrate to achieve destructive interference with incoming ambient light. The presently claimed subject matter does not require a metal reflective layer on the substrate to reduce or eliminate incident light. The structural limitations of the device described in Ko are distinct from the presently claimed embodiments which do not require a metal reflective layer; in addition, added cost and complexity are present in Ko's disclosed embodiment by requiring a precise deposition of this metal reflective layer. Given the precision required to deposit layers having nanometer thicknesses, the trial and error experimentation of Ko would pose an undue burden and expense for the reasonably skilled practitioner in this art or to that to which the disclosure most closely pertains. Hence, structural differences exist between the device of Ko and that of the presently claimed embodiments: While Ko only discloses possible variation of the organic layer and/or transparent electrode, any of at least one of the first electrode, the second electrode, the hole-transport layer, the electron-transport layer, and the organic active layer can be varied precisely in the present application.

Further, Ko does not present a precise, predictive determination of thickness values, or ranges of values, for at least one of the first electrode, the second electrode, the hole-transport layer, the electron-transport layer, and the organic active layer. Ko would require undue experimentation in the form of repetitive testing to obtain correct thickness values, and any change in materials for any of the OLED components would require another round of undue experimentation. In contrast, the present invention allows the artisan to select a value (or range

of values $d_1 - d_2$) for any or all of the first electrode, second electrode, hole-transport layer, electron-transport layer and organic active layer, to avoid a trial-and-error approach to reduce or eliminate reflected ambient light. The presently claimed subject matter also allows for the use of conventional materials so that novel materials whose properties are not affected by variations of thickness need not be discovered to achieve the reductions in background radiation and improvement in contrast ratio.

Applicants respectfully submit that the differences between the claimed subject matter and Ko are well beyond mere optimization of results. As detailed above, Ko requires that a metal reflective layer be formed on the substrate, and does not teach or fairly suggest how the range in thicknesses of a single layer may be calculated to reduce the transmission of incident light in the manner achieved by Applicants.

Consequently, Ko fails to teach or suggest the subject matter of pending Claims 1, 5, 6, 10-13, 19 and 20. Thus, the rejection should be withdrawn.

Conclusion

In view of the above remarks, Applicants submit that the case is in condition for allowance. A Notice of Allowance is respectfully solicited.

Should the Examiner have questions about the contents of this paper or the status of the application, the Examiner is invited to call the undersigned at the telephone number listed below.

Respectfully submitted,

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